1: Freeman E-5 (1949-1951)1955 OC6 Iban OC6

winnowed and stored. On one occasion however, I observed a woman deliberately putting poorly formed panicles into her seed basket. She said that she was doing this because she had pity on such small and imperfect *padi* plants ("*sayau ka leka mit*"), and wanted to give them another chance—a good example this of the highly personal feelings which the Iban have about their *padi*.

114. All Iban take the greatest interest in new or uncommon varieties of *padi*, and I encountered a number of cases of men having collected seed on their travels (*bejalai*). Majau, a man of Rumah Nyala, lost his *padi pun* when his *dampa* was destroyed by fire; on a subsequent journey to the Ulu Rejang he managed to procure seed from a Kayan family, and this, after appropriate rituals, became his new *padi pun*. Kubu, another man of Rumah Nyala, went in 1948 on a trading expedition to the Penihing people of the Upper Mahakam River. He returned to Sarawak with small quantities of three different kinds of *padi* seed, having purchased two of them, and purloined the third. In 1949 all of this seed was planted and the resulting crop stored away so that larger areas could be sown in 1950. The purloined variety, of which Kubu was more than proud, had exceptional characteristics: the length of the rachis was about 14 inches, with some 27 branches, carrying between 530 and 560 grains. This inter-change of *padi* seed, both sanctioned and unsanctioned, among the hill tribes of Borneo shows every sign of being a long-established custom.

115. After the harvest each variety of seed is stored in a separate container. These containers are made either from plaited cane, or from strips of bark sewn securely together; their most important feature is a lid that fits tightly enough to protect the seed from mice and rats. When filled—they vary in capacity from about two to ten gallons—they are stacked away in the loft (*sadau*), or around the walls of the *bilek* until the time for sowing returns. Although men take an active part in the rituals associated with sowing, it is rare to find a man with an accurate knowledge of all the varieties of seed owned by his *bilek* family. This is essentially the woman's province, and whenever I began to record the names, and other details of *padi* seed, the man of the family, hopelessly out of his depth, would hurriedly summon his wife, or some other woman of the family to enlighten me.

116. Iban families always store away considerably more seed than they are likely to require at the next sowing. My investigations showed that after the harvest a family of average size (i.e. 5-6 members) had seed holdings amounting to from 50 to 60 gallons, or approximately double their probable requirements at the next sowing. On May 20th, 1950, for example, the *bilek* family of Kubu, with six members, held the seed of 18 different strains of *padi*, the quantities varying from 1½ to 5 gallons, and totalling 57 gallons. Not much more than about half of the seed of each strain is sown, and the residue is stored away again lest any section of the farm fail or be destroyed. After the harvest however the old seed is consumed, and replaced by grain from the new crop.

Catch-Crops

117. A special feature of Iban agriculture is the cultivation of a wide range of catch-crops, interspersed on the same land as the *padi*. A few, such as *ensabi* (a kind of mustard plant, the leaves of which are eaten), are sown separately, immediately after the burn. Others are planted simultaneously with the *padi*, their seeds being mixed up in the same sowing basket as the *padi*, and sown into the same dibble-holes. The most important of these are:

(*a*) *buah rampo:* cucumber;

1: Freeman E-5 (1949-1951)1955 OC6 Iban OC6

(*b*) *buah enkikai:* pumpkin;
(*c*) *buah empusut:* luffa sp.;
(*d*) *buah labu:* gourd.

All of these are ready to eat before the *padi* has ripened, for the Iban delight in the fruits of these plants when they are still immature; and again, cucumber and pumpkin leaves are cooked as vegetables as soon as they have formed. In good years there is often a glut. Around the edges of the farm clearing, and in the immediate vicinity of the hut (*langkau*) which stands at its centre, various other plants are grown, such as: cassava (*empasa*), maize (*lingkau*), *changkok* (Sauropus albicans), and pineapples (*buah nanas*).

The Weeding of the Farm

118. One of the greatest difficulties with which a shifting cultivator has to cope is weed growth. Under certain circumstances it may even seriously interfere with affairs before the burn. This happens if the period between the felling and the firing is too protracted, in which event weed growth and general regeneration choke the fallen timber and prevent a good blaze. This re-growth which springs up before the burn is termed *pelangus*, and occasionally it becomes so thick that part of a farm has to be abandoned. I was able to observe a striking case of this at Rumah Nyala in 1949. Majau, a young and inexperienced farmer who had but recently set up his own *bilek* family, felled about 3 acres of secondary jungle (*danun*) early in May, hoping, he said, for an early burn. Because of bad weather however, he did not succeed in firing his farm until 14th September, by which time it was so densely covered with *pelangus* that about half of it did not catch at all, and of the remaining 1½ acres only those parts which he had slashed a second time burnt well. The outcome was an exceedingly poor crop, for there was healthy *padi* on not much more than a single acre.

119. Within a few weeks of the burn the weeds begin to reappear. Their prevalence and their nature depend very largely on the type of land which is being farmed. After the felling of primary jungle, for example, weed growth is slight, but after two consecutive firings of secondary jungle (i.e. a *krukoh danun* farm), weeds are usually prolific with *lalang* (Imperata sp.) and other virtually ineradicable grasses, ferns and shrubs having invaded the land. These factors will be discussed in the section on land usage.

120. Weeding begins, in a desultory way, even before sowing is completed. On a number of occasions at *belaboh padi pun* rituals, I observed the women whose farm it was devote their spare time to weeding, leaving the business of sowing to their guests from other *bilek* families. Within a day or two of the completion of sowing the rite of *bebasu arang* ('washing the charcoal') takes place. This represents the formal termination of the many prohibitions (*pemali*)[1] which are in force during the period of planting. Weeding is then ready to begin, but its commencement is not marked by any kind of ritual.

121. Of all the labour stages in the agricultural cycle weeding is the most onerous and irksome. It has none of the excitement of felling, and lacks the conviviality and the heightened emotion associated with the many rituals of sowing. Weeding is uninviting, unremitting work calling for diligence and

[1] For example, during the sowing period it is forbidden to pluck the eyebrows or eyelashes (*pemali mantun bulu mata*), as this is symbolical of the young *padi* shoots being plucked out by birds. Again, there must be no forging, etc. of iron (*pemali ngamboh*) for this causes the young padi to become 'feverish' (*angat*) and sickly. In all there are about a score of these *pemali*.

3: Low G-5 (1844-1847) 1848
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Indian corn, or maize, as it is frequently called in Europe, is planted sparingly at the same time; and as it is ripe and off the ground in three months from the time of sowing, it does not injure the padi, amongst the rows of which it is sown; and as it comes in at a season when the rice is getting exhausted, and the second crop not ready, it is of great use to the Dyaks, though not so much esteemed as rice as an article of food. On the larger collections of ashes they also sow the seeds of gourds, pumpkins, a kind of melon without flavour, and cucumbers, of which they are very fond. These trail along the ground amongst the stems of the padi, to which they appear to do no injury, and continue bearing for some time after the rice crop has been gathered in.

After the field has been all planted, the Dyak and his family occupy themselves in building a hut on some elevated position in the field, for the convenience of being able to reside at it constantly during the periods when it most requires their care, and for storing the harvest when ripe from the rain, until they can carry it to their granaries, which are generally near, but apart from the houses of the village. The 'dañgau,' as this hut is called, is always upon posts, and with a raised but not covered platform before it, for the convenience of drying the padi before it is placed in the baskets in which it is to be conveyed to the granary. During its growth the field is always weeded twice: this, as they are assisted by no tools, with the exception of their parang,

3: Low G-5 (1844-1847) 1848
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243 is a very toilsome occupation, which is always carefully accomplished by the industry of the Dyak, as the rapid growth of the weeds would soon spoil his crop, and render unavailing all the labour his farm had previously cost him.

About March or April, or from six to seven months after the period of its sowing, the padi puts on the beautiful appearance which informs the delighted husbandman of the approach of the reward of his labours. At this season the field of the Dyak presents a more lovely picture to the eye than the farms of Europe. The yellow padi is everywhere
● [244] relieved by the gaudy flowers of the bayam, a kind of vegetable, which resembles the Amaranthus, or prince's feather of our gardens, and its large tufts of orange and crimson enhance the beauty of the pleasing scene. As the heads of padi seldom all ripen together, or so regularly as the ears of other grain in England, no sickle is used in reaping, nor are the stalks bound into bundles. Every person in the family of the Dyak, armed with his or her basket and knife, is employed in going regularly over the field, and taking off all the ripe heads, with but a few inches of the straw, the bulk of which is left standing on the ground, where it decays, and nourishes the earth which produced it. Each person, when the basket is full, carries it to the dangau, where it is rubbed from the ear, frequently by the hands; but this irksome method is, by those who have large farms, avoided by a sieve which they erect outside the hut,

3: Low G-5 (1844-1847) 1848
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husk, or padi state, it may be kept for years without injury, and is in this respect supposed to be equal to the production of India or America.

Besides the farms above described, the Dyaks have small gardens, usually the property of women, in which they plant vegetables of different kinds, principally the 'trong,' brenjal of the East, and egg-plant of Europe, sugar-cane, plantains, yams, sweet potatoes, chilies, &c. A few plants of tobacco are generally found in their farms, the leaves of which they prepare by drying for their own use. Sisawi, a kind of mustard, and a species of millet, are also planted amongst the padi in small quantities. The sugar-cane, which grows very freely, is only esteemed for its saccharine juice, which they extract like the Malays, by chewing. Of the plantains they have several fine varieties; that most esteemed is the 'pisang amas,' or golden plantain; its fruit is small and not angular, the bunch is, however, uncommonly large—it is of a rich golden yellow colour, and much finer flavour than most of the other kinds. The 'pisang merah,' or red plantain, called 'pisang udang,' or prawn plantain, by the Malays, and 'pisang baddat,' are the next in esteem, and resemble each other, except in colour, which in the former is red, in the latter yellow, with green ends; many others are very fine, but as the varieties are so numerous it is unnecessary to particularize them: the 'pisang tandok,' or horn plantain, bears fruit of from twelve to eighteen inches in length, and is a well-

4: Roth E-4 (no date) 1891 OC6 Iban OC6

few minutes in the sun before putting on their *chawats* (loin-cloths).

Their next duty is to prepare the morning meal. They eat with the men or not as they please, but they generally prefer to feed with the children after the men have finished. When breakfast is all over they clean up the crockery and brush the floor. The pigs and poultry are fed with the refuse, as are also the dogs.

They are now ready to accompany the men to the farm, or if not required they pursue their own occupations, which are various and manifold. As it is necessary to provide vegetables for the next meal, they visit their gardens for this purpose and bring home with them whatever they may be able to find in them, viz.:—cucumbers, pumpkins, melons, capsicums, &c. Tapioca leaves, cucumber leaves, and sweet-potato leaves are used by them as much as anything else, and they are fond of them when boiled in water.

Sometimes they go out fishing with scoop nets when they have the time to spare, or are desirous of a change of diet. It is the business of the men to provide pork, venison, and fresh fish, but the preserving is done by the women, who smoke or pickle according to fancy. There is never a want of firewood in a Dyak house; one of the first duties of a husband is to provide this, or he gets into bad odour with his wife or mother-in-law. The wood is smoked until every particle of moisture is evaporated out, and it becomes quite brittle and hard. If the women go out in the forenoon upon expeditions of the above kind, they have to be back again by the middle of the day to cook the mid-day meal. If they are busy on the farm, and mean to make a day of it with the family, they take what rice they require with them early in the morning and cook it on the spot to avoid the journey to and fro.

At two o'clock in the afternoon they pound a measure of paddy with heavy wooden pestles to free it from the husk; each woman is provided with a wooden mortar which is placed either in the *tempuan* or thoroughfare, or inside the *bilich* or room, and two women pound away at each. At 4 p.m. they bathe, and at 5 p.m. they are busy cooking for the third and last meal of the day. After the things are cleared away they hang up the mosquito curtains, and put the children to bed, while they sit up for an hour or two to converse with the men, and retire to rest when tired.

In addition to the above routine of daily labour, they have a variety of things to do, and are never idle. They have to fetch drinking water and to nurse the babies, and when they are tired of carrying them about in their arms, they strap them on to their back with A cloth.

5:Roth E-4 (no date) 1892 OC6 Iban OC6

243 injure the paddy, amongst the rows of which it is sown; and as it comes in at a season when the rice with some is getting exhausted, and the second crop is not ready, it is of great use to the Dyaks, though not so much esteemed as rice as an article
[244] of food. On the larger collection of ashes they also sow the seeds of gourds (*gerrok*), pumpkins (*entekai*), a kind of melon without flavour (*junggat*, *kundu*), and cucumbers (*rampu*), of which they are very fond. These trail along the ground amongst the stems of the paddy, to which they appear to do no injury, and continue bearing for some time after the rice-crop has been gathered in. A small quantity of *pulut* is also grown by every family. It is a fine strong growing kind of paddy, but when cleaned and boiled is of a peculiar clammy nature.
[252] It bears a higher price than any other kind in the market, and is always eaten by the Dyaks cooked in green bamboos, as it is thought that the ordinary metal cooking pot spoils the flavour. The farm is tabued during the *tugal*.

[417] After the seed has been sown, it is the business of the men to plant a fence (*raja*) round the farm to protect it from the inroads of wild animals such as pig and deer; this should not occupy much time, as the material is ready to hand, having been collected for the purpose previous to the burning, from the *débris* scattered on the ground.

There are many things which sorely try the patience of the Dyaks as they watch with unflagging interest the growth of their crops. It is true the pigs and deer are excluded by means of the wooden fence, but nothing short of the most untiring vigilance, and not always even that, can keep out the numerous climbing and winged pests, such as monkeys, squirrels, rats, and sparrows, some of which are sure to visit the farm as
[782] the paddy is ripening. Their sole remedy, such as it is, is to give a feast and propitiate the spirits in the usual manner. A miniature junk is built and filled with delicate morsels, the plagues are then besought to embark for some other country, and the toy is set adrift to float out to sea with the outward tide.
[784] During this ceremony the village is tabued for seven days in the same manner as is done when the purification for burning is performed.

342 The next thing is to build a *langkau* or farm house on some commanding or central situation where the family may reside without inconvenience off and on or altogether just as they please until the harvest is over. They have still weary duties
462 to perform before they can hope to reap the fruit of their toil; but it too often happens that these are left to the women and children, while the able-bodied men seek other and more congenial occupation, *i.e.*, either follow a war-path, or journey

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177 Although the pepper industry remains largely a Chinese preserve, many Ibans have realized that pepper is a supplement to rubber as a source of cash income and, where soil conditions are suitable, have planted pepper gardens. In this District, the areas where pepper is planted include Salim, Durin, Naman, Sungai Teku, Sungai Maung, Aup and Bukit Lan.

Pepper planting is a new venture to most Ibans who have been attracted to this speculative crop because of the profits it yields as well as because it is a substitute for slumping rubber. The Iban does not have sufficient capital to plant the vines in large numbers, and in most cases plants between 150 and 350 vines. He must purchase the vines, [654] belian posts (tuat) on which they climb, and fertilizers. The Agriculture Department helps with herbicides and pesticides. The Iban also does not have the experience that the Chinese brings to pepper gardening, and his plants suffer accordingly. His inexperience manifests itself as he plants in poorly drained soil, does not practice balanced fertilization, or sprays his plants with pesticides that are too strong, [433] in more than one case causing the leaves to fall off. Consequently, the Iban planter realizes a yield of between four and five katis per vine, whereas the Chinese averages between eight to ten katis per vine.

244 Vines begin bearing after three years, and harvesting is done annually between May and August. After the berries are picked, they are

244 transported to the longhouse (in the case of Ibans) where they are sorted and cleaned by members of the family, men, women, and children alike on the ruai. After being thoroughly cleaned, the pepper is dried on the tanju' and turned with a wooden rake. When the pepper is dry, it is transferred to gunny-sacks which, when full, weigh about 150 katis. [434] On an average, an Iban planter receives an annual income of approximately M$1,500 from 250 vines.

243 their food supply. Gathering of jungle produce is still a relatively
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314 important work by which fruits, chicle, fibers and a number of other items are brought to market and sold. The collection of vegetable leaves, shoots and cabbages of a number of different palms provides the principal supplements to the staple of rice. And when rice runs out and there is no money to buy more, the much-disliked scarcity food, sago, can be collected and processed.

226 Fishing is both a leisure activity and a means for catching the most regular and dependable supply of meat in the Iban diet. The Ibans are most adapt at exploiting the rivers and streams along which they live, their techniques depending upon the conditions of the water, the habits of the fish and other aquatic life, and whether they intend to consume the catch personally or to sell it to members of their long-house or in the market. The introduction of fish-ponds has provided a much more dependable source of meat.

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244 Hunting provides a diversion from other activities, but game is not plentiful in this District. Gardening is assuming more importance among a number of Ibans, but the inclination is to plant cash crops rather than vegetables for personal consumption.

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243
437 The uncertainty of returns from rice cultivation, together with the orientation of Ibans to a cash economy and to goods which can be purchased with money, has prompted members of every longhouse to seek employment.

243 provide the food while others work in their fields, and pork, vegetables
496 and other lauk ("food other than rice," upriver, engkayu') are purchased
184 or obtained from the family's resources.

243 The anak padi of each variety of rice is transplanted in rows, and when one strain is completed, a new row is begun for the next. A survey of the farms of Rumah Nyala, Aup, and Rumah Imba, Salim, showed that each farm contained an average of 15 different strains of rice, divided almost equally between those maturing in six months and others [221] requiring only three months for maturation.[12] The six-month varieties are planted between mid-August and the first of September, and the 244 three-month strains by the end of October. A strip of land three feet 243 wide between the three- and six-month varieties is planted with vegetables, the species depending upon the quality and height of the land. Corn (jagong) is interspaced between the strains of rice, and Job's tears (lingkau) on hillocks or raised mounds. Egg-plant (buah terong), pumpkins (buah entekai), and long-beans (retak panjai) are also planted on mounds of earth. Mustard seeds (leka ensabi) and gourd seeds (leka labu') are broadcast (ditabor) over the farm. In some areas where it is impractical to mound up soil, all seeds are broadcast among the rice plants, the rationale being that the plant growth helps with weed control.

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[12] The factor of photo-periodism is important, particularly for full development of the grain. For rice that is planted too late in the year will be imperfectly filled out.